



DDDAS Projects that have been funded/spawned through ITR, NGS & Sensors PRGMS

"~DDDAS" proposals awarded in FY00
ITR Competition

- Pingali, Adaptive Software for Field-Driven Simulations



"~DDDAS" proposals awarded in FY01 ITR Competition

- Biegler - Real-Time Optimization for Data Assimilation and Control of Large Scale Dynamic Simulations
- Car - Novel Scalable Simulation Techniques for Chemistry, Materials Science and Biology
- Knight - Data Driven design Optimization in Engineering Using Concurrent Integrated Experiment and Simulation
- Lonsdale - The Low Frequency Array (LOFAR) - A Digital Radio Telescope
- McLaughlin - An Ensemble Approach for Data Assimilation in the Earth Sciences
- Patrikalakis - Poseidon - Rapid Real-Time Interdisciplinary Ocean Forecasting: Adaptive Sampling and Adaptive Modeling in a Distributed Environment
- Pierrehumbert - Flexible Environments for Grand-Challenge Climate Simulation
- Wheeler - Data Intense Challenge: The Instrumented Oil Field of the Future



"~DDDAS" proposals awarded in FY02 ITR Competition

- Carmichael - Development of a general Computational Framework for the Optimal Integration of Atmospheric Chemical Transport Models and Measurements Using Adjoints
- Douglas-Ewing-Johnson - Predictive Contaminant Tracking Using Dynamic Data Driven Application Simulation (DDDAS) Techniques
- Evans - A Framework for Environment-Aware Massively Distributed Computing
- Farhat - A Data Driven Environment for Multi-physics Applications
- Guibas - Representations and Algorithms for Deformable Objects
- Karniadakis - Generalized Polynomial Chaos: Parallel Algorithms for Modeling and Propagating Uncertainty in Physical and Biological Systems
- Oden - Computational Infrastructure for Reliable Computer Simulations
- Trafalis - A Real Time Mining of Integrated Weather Data



"~DDDAS" proposals awarded in FY03 ITR Competition

- Baden - Asynchronous Execution for Scalable Simulation in Cell Physiology
- Chaturvedi- Synthetic Environment for Continuous Experimentation (Crisis Management Applications)
- Droegemeier-Linked Environments for Atmospheric Discovery (LEAD)
- Kumar - Data Mining and Exploration Middleware for Grid and Distributed Computing
- Machiraju - A Framework for Discovery, Exploration and Analysis of Evolutionary Data (DEAS)
- Mandel - DDDAS: Data Dynamic Simulation for Disaster Management (Fire Propagation)
- Metaxas- Stochastic Multicue Tracking of Objects with Many Degrees of Freedom
- Sameh - Building Structural Integrity
- {Sensors Program: Seltzer - Hourglass: An Infrastructure for Sensor Networks}



"~DDDAS" proposals awarded in FY04 ITR Competition

- Brogan - Simulation Transformation for Dynamic, Data-Driven Application Systems (DDDAS)
- Baldrige - A Novel Grid Architecture Integrating Real-Time Data and Intervention During Image Guided Therapy
- Floudas-In Silico De Novo Protein Design: A Dynamically Data Driven, (DDDAS), Computational and Experimental Framework
- Grimshaw: Dependable Grids
- Laidlaw: Computational simulation, modeling, and visualization for understanding unsteady bioflows
- Metaxas - DDDAS - Advances in recognition and interpretation of human motion: An Integrated Approach to ASL Recognition
- Wheeler: Data Driven Simulation of the Subsurface: Optimization and Uncertainty Estimation